

Listing of the Claims

1. (Previously amended) A method of screening compounds suspected of being skin irritants, comprising:

- a) providing
 - i) a compound suspected of being a skin irritant;
 - ii) a skin equivalent comprising a irritant responsive reporter gene construct, wherein said construct comprises a promoter from an irritant responsive gene operably linked to a reporter gene; and
- b) contacting said skin equivalent with said compound; and
- c) measuring the level of gene expression from said reporter gene construct, wherein increased expression from said reporter gene construct is indicative of a response to said irritant.

2. (Original) The method of Claim 1, wherein said human skin equivalent has a surface electrical capacitance of from about 80 to about 120 pF.

3. (Original) The method of Claim 1, wherein the content of ceramides 5, 6, and 7 in said skin equivalent is from about 20 to about 50% of total ceramide content.

4. (Original) The method of Claim 1, wherein the content of ceramide 2 in said skin equivalent is from about 10 to about 40% of total ceramide content.

5. (Original) The method of Claim 1, wherein said skin equivalent comprises keratinocytes selected from the group consisting of primary keratinocytes and immortalized keratinocytes.

6. (Original) The method of Claim 5, wherein said immortalized keratinocytes are NIKS cells.

7. (Original) The method of Claim 1, wherein said keratinocytes express heterologous Kruppel-like factor 4.

8. (Previously presented) The method of Claim 1, wherein said irritant responsive reporter gene construct comprises a promoter selected from the group consisting of interleukin-8 and interleukin-1 α promoters.

9 - 24. (Canceled)